

**RECEIVED
CENTRAL FAX CENTER**U.S. Application Serial No. 10/563,014
Filed: June 19, 2006

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DEC 18 2008

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listing of claims in the application:

1 (Currently amended). A device for removing separating impurities from a liquid, comprising:

a reservoir having a top and a bottom, for holding a filtering material at a bottom side lower portion thereof and for holding a quantity of the liquid at an upper portion thereof side above the filtering material[.];

a liquid supply channel opening into the lower portion of the reservoir; bottom side of the reservoir for supplying the liquid, to be purified to the reservoir, via a liquid displacement means;

a first liquid discharge channel extending from the upper side of the reservoir for discharging purified liquid from the reservoir and a fluid transport supply channel with an entrance end in the lower portion of the reservoir, facing opening into the bottom side of the reservoir for receiving a turbulent flow of causing turbulence in filtering material, the fluid transport channel having an exit end disposed in the upper portion of the reservoir, above the filtering material present in the liquid by supplying a fluid using; and

a fluid displacement means channel for carrying a displacing fluid under positive pressure, for detaching so as to detach impurities from said filtering material, characterized in that comprising a pipe comprising a first end with an exit end positioned adjacent at the bottom side of the reservoir, and a second end positioned opposite said first end is provided in the reservoir, spaced from and directed toward the mouth entrance end of the fluid transport supply channel to induce turbulence in filtering material located between the entrance end of the fluid transport channel and the pipe, and transporting filtering material, detached from impurities, along the fluid transport channel under positive pressure so as to exit in the liquid at the upper portion of the reservoir for the passage of the fluid supplied to the reservoir via the fluid supply channel.

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2 (Currently amended). ~~The~~ A device according to claim 1, ~~characterized in that~~
wherein the pipe is provided with a funnel on the side facing towards the mouth entrance end of
the fluid supply transport channel, which funnel flares out in the direction of the mouth entrance
end of the fluid supply transport channel.

3-6 (Canceled).

7 (Currently amended). ~~A~~ The device according to claim 1, ~~characterized in that~~
wherein the bottom of the reservoir is substantially V-shaped; ~~seen in vertical cross-sectional~~
view.

8 (Currently amended). ~~A~~ The device according to claim 1, ~~characterized in that~~
wherein the mouth exit end of the fluid supply transport channel ~~in the reservoir~~ is directed in an
upward direction upwards.

9-14 (Canceled).

15 (New). The device according to claim 8, further comprising a check member
spaced from and disposed above the exit end of the fluid transport channel, for deflecting the
turbulent flow of filtering material exiting the fluid transport channel.

16 (New). The device according to claim 1 wherein the liquid supply channel has an
exit located above the entrance end of the fluid transport channel.

17 (New). A device for removing impurities from a liquid, comprising:
a reservoir having a top and a bottom for holding a filtering material at a lower portion
thereof and for holding a quantity of liquid in an upper portion thereof, above the filtering
material, the quantity of liquid having a free surface adjacent the top of the reservoir;
a liquid supply channel opening into the lower portion of the reservoir;

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a fluid transport channel with an entrance end in the lower portion of the reservoir, facing the bottom of the reservoir, for receiving a turbulent flow of filtering material, the fluid transport channel having an exit end disposed in the upper portion of the reservoir, above the filtering material;

a fluid displacement channel for carrying a displacing fluid under positive pressure, for detaching impurities from said filtering material, comprising a pipe with an exit end positioned at the bottom of the reservoir, spaced from and directed toward the entrance end of the fluid transport channel to induce turbulence in filtering material located between the entrance end of the fluid transport channel and the pipe, and transporting filtering material, detached from impurities, along the fluid transport channel under positive pressure so as to exit in the liquid in the upper portion of the reservoir; and

an outlet opening in the upper portion of the reservoir to draw off floating impurities at the free surface of the liquid.

18 (New). The device according to claim 17, wherein the outlet opening is spaced a predetermined distance below the top of the reservoir.

19 (New). The device according to claim 17, further comprising:
a container coupled to the outlet opening of the reservoir to receive floating impurities therefrom;

the container divided into first and second portions by a weir; and
a discharge opening in the second portion of the container,
whereby the floating impurities travel over the weir to the discharge opening for subsequent disposal.

20 (New). The device according to claim 19, further comprising:
a circulation opening in the first portion of the container; and
a selectably operable valve movable between closed and open positions for closing and opening the circulation opening.

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21 (New). The device according to claim 20, further comprising:
a control for ceasing flow of the displacing fluid while opening the selectably operable valve so as to direct fluid through the circulation opening.

22 (New). The device according to claim 20, wherein the container has a bottom in which the discharge opening and the circulation opening are located.

23 (New). The device according to claim 22, wherein the weir has a predetermined height above the bottom of the container.

24 (New). A method for removing impurities from a liquid using the device of claim 20, the method comprising:

moving the selectably operable valve of the device to the closed position while releasing a displacing fluid carried within the fluid displacing channel under positive pressure to produce a turbulent flow of the filtering material so as to direct said filtering material through the fluid transport channel to the upper portion of the reservoir and to float detached impurities present in the liquid to the free surface of the liquid, removing the floating impurities from the liquid through the outlet opening into the first portion of the container and over the weir to the discharge opening for subsequent disposal.

25 (New). The method according to claim 24, further comprising ceasing flow of the displacing fluid while opening the selectably operable valve so as to direct fluid through the circulation opening.

26 (New). The method according to claim 24, wherein the discharge opening and circulation opening of the device are located in the bottom of the container.

27 (New). The method according to claim 24, the top of the weir of the container is located at a predetermined height above the bottom of the container.